19

CLAIMS

1.   A method of streaming video signals comprising the steps of capturing and/or storing a video frame or a series of video frames each frame comprising a matrix of "m"
5   pixels by "n" pixels, compressing the or each said m by n frame to a respective derived frame of "p" pixels by "q" pixels, where p and q are respectively substantially less than m and n, for display on a screen capable of displaying a frame of at least p pixels by q pixels, transmitting the at least one derived frame and receiving signals defining a preferred selected viewing area of less than m by n pixels, compressing the selected
10 viewing area to a further derived frame or series of further derived frames of p pixels by q pixels and transmitting the further derived frames for display characterised in that the received signals include data defining a preferred location within the transmitted further derived frame which determines the location within the m pixel by n pixel frame from which the next further derived frame is selected.
15

2.   A method according to Claim 1 in which the received signals also define a zoom level comprising a selection of one from a plurality of offered effective zoom levels each selection defining a frame comprising at least p pixels by q pixels but not more than m pixels by n pixels.
20

3.   A method according to Claim 1 or Claim 2 in which the received signals are used to cause movement of the transmitted frame from a current position to a new position on a pixel by pixel basis.

25 4.   A method according to Claim 1 or Claim 2 in which the received signals are used to cause movement of the transmitted frame on a frame area selection basis.

5.   A method according to Claim 1 in which the frame to be transmitted is automatically selected by detecting an area of apparent activity within the major (M by N)
30 frame and transmitting a smaller frame surrounding that area.

6.   A method according to any preceding claim in which received control signals are used to select one of a plurality of pre-determined frame sizes and/or viewing angles.

20

7.   A method according to claim 6 in which the control signals are used to move from a current position to a new position within the major frame and to change the size of the viewed area whereby detailed examination of a specific area of the major frame may be achieved.

5

8.   A method according to Claim 7 in which the selection is by means of a jump function responsive to control functions to select a different frame area within the major frame in dependence upon the location of a pointer.

10 9.   A method according to Claim 7 in which the selection is by means of a scrolling function, control signals causing frame movement on a pixel by pixel basis.

10.   Terminal apparatus for use with a video streaming system, the apparatus comprising a first display screen (20) for displaying transmitted frames and a second

15 display screen (21) having selectable points to indicate the area being displayed or the area desired to be displayed and transmission means for transmitting signals defining a preferred position within a currently displayed frame from which the next transmitted frame should be derived .

20 11.   Terminal apparatus according to Claim 10 including a further display means (39) including the capability to display the co-ordinates of a current viewing frame and/or for displaying text or other information relating to the viewing frame.

12.   Terminal apparatus as claimed in Claim 11 in which the further display means

25 (39) displays text in the form of a URL or similar identity of a location at which information defining viewing frames is stored.

13.   Terminal apparatus as claimed in Claim 10, Claim 11 or claim 12 including a low bandwidth reception path for transmitting control signals and a higher bandwidth path for

30 receiving a selected viewing frame.

14.   A server comprising a computer or file server (1) having access to a plurality of video stores (4) each of which stores video frames each of which comprises a matrix of "m" pixels by "n" pixels;

21

and/or connection to a camera (2) for capturing images to be transmitted and a digital image store (3) in which such images are held as a series of video frames each frame comprising a matrix of "m" pixels by "n" pixels;

the computer (1) including means (9) to compress each said m by n frame to a derived frame of "p" pixels by "q" pixels, where p and q are respectively substantially less than m and n, for display on a screen (6) capable of displaying a frame of at least p pixels by q pixels, and causing the or each frame to be transmitted, the server (1) being responsive to received signals defining a preferred selection of viewing area of less than m by n pixels, to cause compression of the selected viewing area to a derived frame or series of further derived frames of p pixels by q pixels and causing the transmission of the further derived frames for display characterised in that the server (1) is responsive to data signals defining a preferred location within an earlier transmitted frame to select the location within the m by n major frame from which the next p by q derived frame is transmitted.

15.   A server as claimed in Claim 14 in which images captured by the camera (2) are stored in the digital image store (3), the computer (1) being responsive to control signals received from terminal apparatus (6,7) to move from a current position to a new position within a stored major (m x n) frame and to compress a selected area at the new position so that movement through the viewed area may be performed by the user at a specific instant in time if live action viewing indicates a view of interest potentially beyond or partially beyond a current viewing frame.

16.   A server as claimed in Claim 14 or Claim 15 in which the computer (1) runs a plurality of instances of a selection and compression program (9) to enable respective transmissions to different users to occur.

17.   A server as claimed in Claim 16 in which each instance of the selection and compression program provides a selection from a camera source (2) or stored images from one of said video stores (4).

18.   A server as claimed in any one of claims 14 to 17 in which the digitised image from the camera (2) or video store (4) (major frame) is pre-selected and divided in to a plurality of frames each of which is simultaneously available to switch means (15) responsive to customer data input (16) to select which of said frames is to be transmitted.

22

19.   A server as claimed in Claim 18 in which the selected digitised image passes through a codec (17) to provide a packaged bit stream for transmission to a requesting customer.

5

20.   A server as claimed in Claim 18 in which each of the plurality of frames is converted to a respective bit stream ready for transmission to a requesting customer a switch (15) selecting, in response to customer data input (16), the one of the bit streams to be transmitted.

10

21.   A server as claimed in any one of claims 14 to 20 in which the computer is responsive to customer input signalling defining selection of a part frame to be viewed from a major frame, the server (1) responding to a customer data packet requesting a transmission by transmitting a compressed version of the major frame (12) or a pre-
15   selected area (13,14) from the major frame and responds to subsequent customer data signals defining a preferred location of viewing frame to cause transmission of a bit stream defining a viewing frame at the preferred location.